

REMARKS

Reconsideration of the above-identified patent application in view of the present amendment and the following remarks is respectfully requested.

This amendment amends claims 11, 18 and 20. This amendment also cancels claim 19 without prejudice or disclaimer.

The amendments to claims 11, 18, and 20 overcome the rejection of the claims under 35 U.S.C. §112, second paragraph. Moreover, the amendment to claim 11 also deleted the term "whereby." It is respectfully submitted that deleting the term "whereby" from claim 11 does not substantively change claim 11. As cited in the Office Action, In re Mason, 114 USPQ 127, 44 CCPA 937 (1957) holds that a statement using the term "whereby" to describe a function does not define any structure. However, the term "whereby" as previously set forth in claim 11 did not describe a function but rather described structure. Therefore, the holding of In re Mason is not applicable to claim 11. However, in order to clarify the invention of claim 11, the term "whereby" has been deleted.

With regard to the rejection of claim 11 as anticipated under 35 U.S.C. §102(b) over Pazdirek et al., U.S. Patent No. 5,609,433, the rejection is respectfully traversed. Claim 11 recites that an inside diameter of a cylindrical center part of the metal ring corresponds to an outside diameter of the bearing shell. Pazdirek et al. fails to disclose this feature

of claim 11. Pazdirek et al. discloses a strengthening element 26 having a cylindrical first portion 28 that is covered on an inner surface and an outer surface by thermoplastic material of the housing 12. (Pazdirek et al., Col. 3, lines 62-67, and Fig. 2). As shown in Fig. 2 of Pazdirek et al., a layer of thermoplastic material, approximately the same thickness as the thickness of the ball cap 36, separates the ball cap 36 from the strengthening element 26. Thus, Pazdirek et al. fails to disclose that an inside diameter of strengthening element 26 corresponding to an outside diameter of ball cap 36. Therefore, it is respectfully suggested that the rejection of claim 11 as anticipated by Pazdirek et al. is improper and should be withdrawn.

The rejection of claim 11 as anticipated under 35 U.S.C. §102(b) by Wood, U.S. Patent No. 5,697,723, is also traversed. Wood fails to disclose a plastic joint housing (2) and a metal ring (4) embedded in the joint housing (2). Wood discloses a stamped sheet metal socket 14 and a metal collar 48. (Wood, Col. 1, line 58 and Col. 2, lines 17-19). The sheet metal socket 14 includes a lip 32 that is crimped inwardly to hold the metal collar 48 within the socket 14. Thus, Wood fails to disclose these recited features of claim 11. Therefore, it is respectfully suggested that the rejection of claim 11 as anticipated by Wood is improper and should be withdrawn.

Claims 12-18 depend from claim 11 and are allowable for at least the same reasons as claim 11. Additionally, claims

12-18 are allowable for the specific limitations of each claim.

Claim 12 was rejected as obvious under 35 U.S.C. §103 over Pazdirek et al. in view of Hamilton, U.S. Patent No. 3,384,396. This rejection is respectfully traversed. Claim 12 recites that the metal ring (4) has a radially outwardly angled flange (4.2) that is extrusion-coated with material of the joint housing (2). It is respectfully suggested that neither Pazdirek et al. nor Hamilton teach or suggest these features of claim 12. Specifically, Pazdirek et al. fails to teach or suggest a radially outwardly angled flange. Hamilton discloses a cap 28 having a radially outwardly angled flange that seats on a shoulder 30 of housing 10. (Hamilton, Col. 3, lines 31-34). A lip 32 of the housing 10 is pressed into engagement with cap 28. (Hamilton, Col. 3, lines 35-36). Thus, neither Pazdirek nor Hamilton teach or suggest a radially outwardly angled flange (4.2) that is extrusion-coated with material of the joint housing (2), as is recited by claim 12. Thus, a combination of the two references also fails to teach or suggest this feature. Therefore, it is respectfully suggested that the rejection of claim 12 is improper and should be withdrawn.

With regard to the rejection of claim 20 as anticipated under 35 U.S.C. §102(b) over Hamilton, U.S. Patent No. 3,384,396, the rejection is respectfully traversed. Claim 20 recites a metal ring having a cylindrical portion protruding from an opening of the joint housing and forming a passage receiving the bearing shell. Claim 20 further recites an

inside diameter of the metal ring comprising a guide surface for engaging and receiving an outside diameter of the bearing shell and for guiding the bearing shell into the joint housing. Hamilton fails to disclose these features of claim 20.

Hamilton discloses a sleeve 14 that is secured to the interior side wall of a chamber 12 of a housing 10. (Hamilton, Col. 2, lines 56-61). A cap 28 is used to retain the head portion of the stud 16 in the sleeve 14. (Hamilton, Col. 3, lines 26-36). Hamilton fails to disclose a cylindrical portion of cap 28 protruding from an opening of the housing 10 and forming a passage that receives sleeve 14. Cap 28 of Hamilton does not receive sleeve 14. Sleeve 14 is secured within the housing 10 prior to attachment of cap 28. (Hamilton, Col. 3, lines 48-59). Therefore, Hamilton fails to disclose this feature of claim 20.

Furthermore, Hamilton fails to disclose an inside diameter of cap 28 comprising a guide surface for engaging and receiving an outside diameter of sleeve 14 and for guiding sleeve 14 into the joint housing 10, as recited in claim 20. Cap 28 in Hamilton does not engage and does not receive any part of sleeve 14. Thus, Hamilton fails to disclose this feature of claim 20. Since Hamilton fails to disclose each limitation of claim 20, the rejection of claim 20 as anticipated by Hamilton is improper and should be withdrawn.

Claims 21-23 depend from claim 20 and are allowable for at least the same reasons as claim 20. Additionally, claims

21-23 are allowable for the specific limitations set forth in each claim.

Specifically, claim 21 recites that the metal ring includes a radially outwardly extending flange portion that extends into and is embedded in the joint housing for anchoring the metal ring within the joint housing. The radially outwardly extending flange of cap 28 of Hamilton is not embedded in housing 10. (Hamilton, Col. 3, lines 31-36). Since Hamilton fails to disclose this feature of claim 21, the rejection of claim 21 as being anticipated by Hamilton is improper and should be withdrawn.

Claim 22 recites that the joint ball has an equator and the radially outwardly extending flange portion of the metal ring extends into the joint housing at a location near the equator of the joint ball. Hamilton fails to disclose this feature of claim 22. With reference to Fig. 1 of Hamilton, the radially outward flange of cap 28 is not located near an equator of the head portion of stud 16. Therefore, the rejection of claim 22 as anticipated by Hamilton is improper and should be withdrawn.

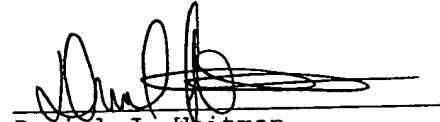
In view of the foregoing, it is respectfully submitted that the above-identified patent application is in condition for allowance, and allowance of the above-identified patent application is respectfully requested.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "Version with markings to show changes made."

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Please charge any deficiency or credit any overpayment in  
the fees for this amendment to our Deposit Account  
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Respectfully submitted,



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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Please amend claim 11 as follows:

11. (Amended) Ball-and-socket joint having a joint pin provided with a joint ball (1.1), a plastic joint housing (2) into which is inserted a bearing shell (3) for [the ]rotatable and [to a limited extent] tiltable support of the joint ball (1.1), and a metal ring (4) to positively lock the bearing shell (3) within the joint housing (2), [whereby] the metal ring (4) is embedded in the joint housing (2) and has a radially inwardly bent end segment (4.3) located in an area of an opening in the joint housing (2) that is provided for [the] passage of the joint pin (1), characterized in that an inside diameter of a cylindrical center part (4.1) of the metal ring (4) corresponds to an outside diameter of the bearing shell (3).

Please amend claim 18 as follows:

18. (Amended) Ball-and-socket joint as claimed in claim 11 characterized in that the joint housing (2) in the area of the opening is provided with a ring groove (2.1) [into which]that is adapted to receive a ball-side end of a sealing bellows (5) [ may be secured].

Please amend claim 20 as follows:

20. (Amended) Ball-and-socket joint comprising:  
a joint pin having a joint ball;

a bearing shell for supporting the joint ball of the joint pin, the joint ball being rotatable and, to a limited [extend]extent, tiltable relative to the bearing shell;

a joint housing for supporting the bearing shell, the joint housing having an opening for receiving the bearing shell; and

a metal ring having a cylindrical portion, the cylindrical portion of the metal ring protruding from the opening of the joint housing and forming a passage receiving the bearing shell, an inside diameter of the metal ring comprising a guide surface for engaging and receiving an outside diameter of the bearing shell and for guiding the bearing shell into the joint housing, the metal ring also having a radially inwardly bent end segment for securing the bearing shell within the joint housing.

Please cancel claim 19 without prejudice or disclaimer.